

California Energy Commission

STAFF REPORT

LOCALIZED HEALTH IMPACTS REPORT

Addendum 5 for a Selected Project With a Location Change
Awarded Funding Through the Alternative and Renewable
Fuel and Vehicle Technology Program Under Solicitation
PON-11-602 – Alternative Fuels Infrastructure: Electric,
Natural Gas, Propane, E85, and Diesel Substitutes
Terminals



CALIFORNIA
ENERGY COMMISSION

Edmund G. Brown Jr., Governor

AUGUST 29, 2014

CEC-600-2014-008-AD5

CALIFORNIA ENERGY COMMISSION

Patrick Brecht
Primary Author

Sarah Williams
Project Manager

John P. Butler II
Office Manager
***EMERGING FUELS AND TECHNOLOGIES
OFFICE***

Randy Roesser
Deputy Director
FUELS AND TRANSPORTATION DIVISION

Robert P. Oglesby
Executive Director

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ADDENDUM 5

The *Localized Health Impacts Report Addendum for Selected Projects Awarded Funding Through the Alternative and Renewable Fuel and Vehicle Technology Program Under Solicitation PON-11-602 – Alternative Fuels Infrastructure: Electric, Natural Gas, Propane, E85, and Diesel Substitutes Terminals* was originally posted September 21, 2012.¹

The assessment approach of this addendum is as written in CEC-600-2012-004-AD. This addendum to the localized health impacts report assesses and reports on the potential localized health impacts of a station location change for RTC Fuels, LLC dba Pearson Fuels, project “19 Pearson Fuels E85 Stations.” The original E85 station location was 376 Castro Street, San Francisco, CA 94114. This station location will be replaced by the new location of 2831 Cesar Chavez Street, San Francisco, CA 94110. The Cesar Chavez Street location has the same nonattainment status for ozone, particulate matter (PM) 2.5, and PM 10 as the Castro Street location. See Table 1.²

Table 1: Community Status and Project Overview

Project	At-Risk Community	CEQA Completed	Air District Permit Status	Attainment Status for Ozone, PM (2.5), PM (10)
Cesar Chavez Street	No	Complete	In Process	Nonattainment (PM [10])

Source: Energy Commission staff analysis

The Cesar Chavez location will have the surroundings shown in Table 2.

Table 2: Surroundings for the New Site Location

New Address	Surroundings (within a 1-mile radius)
2831 Cesar Chavez Street, San Francisco, CA 94110	22 schools, 21 day-care facilities, and 8 health-care offices

Source: Energy Commission staff analysis

The following overview includes a project description that includes impacts, benefits, outreach efforts, and a discussion of the potential health impacts related to air pollutants explicitly

1 Williams, Sarah, Eric Law. 2012. *Localized Health Impacts Report*. California Energy Commission, Fuels and Transportation Division. Publication Number: CEC-600-2012-004-AD

2 “Particulate matter” is unburned fuel particles that form smoke or soot and stick to lung tissue when inhaled, and a chief component of exhaust emissions from heavy-duty diesel engines.

identified in the project. In addition, demographic data for the planned project location is provided in Table 3.

RTC Fuels, LLC dba Pearson Fuels

Project Name: 19 Pearson Fuels E85 Stations

Cesar Chavez Street, San Francisco, California, 94110

The new proposed station will be located at an existing retail gasoline and diesel fueling station located off of Highway 101. This proposed station is located in both a residential and business area.

PROJECT-GENERATED EMISSIONS

The project has been evaluated using Appendix A of the August 2007 *Full Fuel Cycle Assessment: Well-to-Wheels Energy Inputs, Emissions, and Water Impacts*, CEC-600-2007-004-REV and the December 2007 *State Alternative Fuels Plan*, CEC-600-2007-011-CMF. It is verified in the Full Fuel Cycle Assessment (FFCA) that even corn-based E85 shows at least a 70 percent reduction in petroleum use and a reduction in carbon intensity (CI) ranging between 15 percent and 36 percent as compared to the CI of California reformulated gasoline (RFG). Sugarcane and biomass based E85 shows at least a 72 percent reduction in petroleum use and a reduction in CI ranging between 60 percent and 72 percent as compared to the CI of California RFG.

PROJECT HEALTH IMPACTS

The majority of the E85 that will be dispensed from this station will be displacing California RFG gasoline that would be otherwise transported and burned within the same localized air shed. Therefore, the addition of the E85 to the station will decrease the area criteria pollutants and toxic air contaminants in an amount directly related to the difference between the fuel cycle emissions of those fuels.

PROJECT SUMMARY

Pearson will replace the fuel in one of the existing underground storage tanks so that the station can sell high blends of ethanol (E85) in addition to the fuel it currently sells. In order to do this, it is necessary to replace some of the components attached to the top of the tank as well as replace two of the existing fuel dispensers that are compatible with E85.

Specifically, Pearson will be replacing the drop tube system and adding Phase 1 Vapor Recovery to what is now the diesel tank. The existing drop tube and turbine assembly will be removed and replaced with new certified components compatible with E85. Pearson will also replace two of the existing fuel dispensers with two certified E85 dispensers.

Pearson will use a 90.1 CI ethanol-to-blend E85. E85 in California is nominally 83 percent ethanol and 17 percent California Reformulated Gasoline Blendstock for Oxygenate Blending (CARBOB) with CI scores of 90.1 (in Pearson's case) and 95.86, respectively. In performing the calculation, you can see that the project's E85 has an implied CI score of $((.83 \times 90.1) + (.17 \times$

95.86)) = 91.08, a very substantial improvement over CARBOB.

OUTREACH EFFORTS

Once the station opens, Pearson will hold a grand opening event where they will sell fuel at \$1.85 per gallon or give it away for free for a few hours in order to garner press coverage and local community support. Once the word is out, Pearson will continue to leverage the national marketing of E85 stations that has been going on for years through several national organizations. There are currently at least twelve different online California E85 station locator tools operated by many different organizations. The purpose of these tools is to communicate to the public the availability of E85 in their area. Pearson will work closely with all of the locator tool providers to keep them up to date, and can readily share this station information for the Energy Commission's DRIVE web site.

Pearson will have informational brochures located on brochure holders at the dispensers. Pearson will also have web links on the front page of its website as new stations come on line. New stations will be added with direction services being available as they are now for Pearson's other stations. As the infrastructure develops, Pearson may offer its station partners the opportunity for a co-op program where one cent per gallon will go into an advertising, outreach and education program to promote the fuel at all of its stations statewide, providing significant economies of scale.

Location Analysis and Community Impacts

Based on the information provided, the community is not disproportionately affected by this project. None of the Environmental Justice (EJ) indicators are present in this city, and the above information indicates that there will be no net increase in criteria and toxic air pollutants as a result of the installation of the equipment and increased throughput at each facility.

Location analysis and community impacts are based on comparing the project location demographics to that of California. San Francisco has no EJ indicators (that is, no indication of a minority population, poverty level, unemployment rate, or age).

The last table in this addendum provides city-level data for the city project location to give additional insight on the community demographics where the project will be located.

**Table 3: Demographic Data including EJ Indicators (percentage)
(Compared to the State of California)**

	Persons Below Poverty Level (2008- 2012)	Black persons (2010)	American Indian and Alaska Native (2010)	Persons of Hispanic or Latino Origin (2010)	White persons (2010)	Persons under 5 years of age (2010)	Persons over 65 years of age (2010)	Un- employ- ment rate (June 2014)
California	15.3	6.2	1.0	37.6	40.1	6.8	11.4	7.4
San Francisco	13.2	6.1	0.5	15.1	41.9	4.4	13.6	4.5

Sources: Unemployment information from the State of California, Employee Development Department (EDD) Labor Market Information Division: http://www.labormarketinfo.edd.ca.gov/CES/Labor_Force_Unemployment_Data_for_Cities_and_Census_Areas.html and Demographics information from the U.S. Department of Commerce, U.S. Census Bureau: <http://quickfacts.census.gov/qfd/states/06/0667000.html>.

Summary

The proposed project location is anticipated to impact the city of San Francisco positively due the majority of the E85 that will be dispensed from the station will be replacing California RFG gasoline that would be otherwise transported and burned within the same localized air shed. Therefore, the addition of the E85 to the station will decrease the area criteria pollutants and toxic air contaminants in an amount directly related to the difference between the fuel cycle emissions of those fuels. The anticipated impact to San Francisco would be positive in terms of cleaner air and anticipated greenhouse gas reductions.